

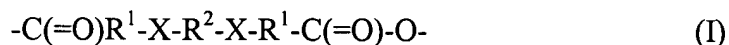
In the Claims

Please cancel claims 12, 14-17, 19-20 and 27-34; amend claims 1-2, 4, 13, 18 and 21, 23-24; and add new claims 35-40 as follows:

1. (Currently amended) A polymer comprising a backbone, wherein the backbone comprises an anhydride linkage, and wherein the backbone comprises one or more groups that will yield a biologically active compound upon hydrolysis of the polymer; provided that the biologically active compound is not an ortho-hydroxy aryl carboxylic acid or an alpha-hydroxy carboxylic acid,

wherein the polymer is made up of biologically active compound moieties and linker moieties and wherein each biologically active compound moiety and each linker moiety, prior to their chemical reaction, contain two reactive functional groups selected from the group consisting of carboxylic acid, hydroxy, thiol and amine, provided there are two carboxylic acid reactive functional groups present to form the anhydride linkage.

2. (Currently amended) The polymer of claim 1 which comprises one or more units of formula (I) in the backbone:



wherein

each R' is group that will provide a biologically active compound upon hydrolysis of the polymer; provided that the biologically active compound is not an ortho-hydroxy aryl carboxylic acid or an alpha-hydroxy carboxylic acid;

each X is independently an amide linkage, a thioester linkage, or an ester linkage;

and

R² is a linking group.

3. (Original) The polymer of claims 1 or 2, wherein the biologically active compound is a non-steroidal anti-inflammatory drug, an anti-bacterial drug, an anti-fungal drug, an anti-cancer drug, an anti-thrombotic drug or an immunosuppressive drug.

4. (Currently amended) The polymer of claims 1 or 2, wherein the biologically active compound is 3-amino-4-hydroxybutyric acid, 6-diazo-5-oxo-L-norleucine, aceclofenac, acediasulfone, alminoprofen, amfenac, amoxicillin, amphotericin B, ampicillin, apalcillin, apicycline, aspoxicillin, azaserine, aztreonam, bambermycin(s), biapenem, bromfenac, bucillamine, bumadizon, candicidin(s), carbenicillin, carprofen, carumonam, carzinophillin A, cefadroxil, cefamandole, cefatrizine, cefbuperazone, cefclidin, cefdinir, cefditoren, cefepime, cefetamet, cefixime, cefmenoxime, cefminox, cefodizime, cefonicid, cefoperazone, ceforanide, cefotaxime, cefotetan, cefotiam, ceftazopran, cefpimizole, cefpiramide, cefpirome, cefprozil, cefioxadine, ceftazidime, ceftaram, ceftibuten, ceftriaxone, cefuzonam, cephalixin, cephaloglycin, cephalosporin C, cephradine, ciprofloxacin, clinafloxacin, cyclacillin, denopterin, diclofenac, edatrexate, eflornithine, enfenamic acid, enoxacin, epicillin, etodolac, flomoxef, flufenamic acid, grepafloxacin, hetacillin, imipenem, lomefloxacin, lucensomycin, lymecycline, meclofenamic acid, mefenamic acid, melphalan, meropenem, methotrexate, moxalactam, mupirocin, mycophenolic acid, ~~mycophenolic acid~~, nadifloxacin, natamycin, niflumic acid, norfloxacin, nystatin, oxaceprol, panipenem, pazufloxacin, penicillin N, pipemidic acid, podophyllinic acid 2-ethylhydrazide, procodazole, pteropterin, quinacillin, ritipenem, romurtide, S-adenosylmethionine, salazosulfadimidine, sparfloxacin, streptonigrin, succisulfone, sulfachrysoidine, sulfaloxic acid, teicoplanin, temafloxacin, temocillin, ticarcillin, tigemonam, tolfenamic acid, (N-((5-(((1,4-Dihydro-2-methyl-4-oxo-6-quinazoliny)l)methyl)methylamino)-2-thienyl)carbonyl)-L-glutamic acid), tosufloxacin, trovafloxacin, ubenimex or vancomycin.
5. (Original) The polymer of claim 3, wherein the anti-bacterial compound is acediasulfone, amfenac, amoxicillin, ampicillin, apalcillin, apicycline, aspoxicillin, aztreonam, bambermycin(s), biapenem, carbenicillin, carumonam, cefadroxil, cefamandole, cefatrizine, cefbuperazone, cefclidin, cefdinir, cefditoren, cefepime, cefetamet, cefixime, cefmenoxime, cefminox, cefodizime, cefonicid, cefoperazone, ceforanide, cefotaxime,

cefotetan, cefotiam, cefozopran, cefpimizole, cefpiramide, cefpirome, cefprozil, cefioxadine, ceftazidime, ceftoram, ceftibuten, ceftriaxone, cefuzonam, cephalixin, cephaloglycin, cephalosporin C, cephradine, ciprofloxacin, clinafloxacin, cyclacillin, enoxacin, epicillin, flomoxef, grepafloxacin, hetacillin, imipenem, lomefloxacin, lymecycline, meropenem, moxalactam, mupirocin, nadifloxacin, norfloxacin, panipenem, pazufloxacin, penicillin N, pipemidic acid, quinacillin, ritipenem, salazosulfadimidine, sparfloxacin, succisulfone, sulfachrysoidine, sulfaloxic acid, teicoplanin, temafloxacin, temocillin, ticarcillin, tigemonam, tosulofloxacin, trovafloxacin, or vancomycin.

6. (Original) The polymer of claim 3, wherein the anti-fungal compound is amphotericin B, azaserine, candicidin(s), lucensomycin, natamycin or nystatin.
7. (Original) The polymer of claim 3, wherein the anti-cancer compound is 6-diazo-5-oxo-L-norleucine, azaserine, carzinophillin A, denopterin, edatrexate, eflornithine, melphalan, methotrexate, mycophenolic acid, podophyllinic acid 2-ethylhydrazide, pteropterin, streptonigrin, (N-((5 -(((1,4-Dihydro-2-methyl-4-oxo-6-quinazoliny)methyl)methylamino)-2-thienyl)carbonyl)-L-glutamic acid), or, ubenimex.
8. (Original) The polymer of claim 3, wherein the immunosuppressive compound is bucillamine, mycophenolic acid, procodazole, romurtide or ubenimex
9. (Original) The polymer of claim 3, wherein the non-steroidal anti-inflammatory compound is 3-amino-4-hydroxybutyric acid, aceclofenac, alminoprofen, bromfenac, bumadizon, carprofen, diclofenac, enfenamic acid, etodolac, flufenamic acid, meclofenamic acid, mefenamic acid, niflumic acid, oxaceprol, S-adenosylmethionine or tolfenamic acid.
10. (Original) The polymer of claim 4, wherein the biologically active compound is amoxicillin or cephalixin.

11. (Original) The polymer of claim 2, wherein the biologically active compound is carbidopa, or levodopa.

Claim 12 (Cancelled).

13. (Currently amended) The polymer of claim 3 2, wherein the linker or R^2 is a divalent, branched or unbranched, saturated or unsaturated, hydrocarbon chain, having from 1 to 25 carbon atoms, wherein one or more (~~e.g. 1, 2, 3, or 4~~) of the carbon atoms is optionally replaced by (-O-) or (-NR-), and wherein the chain is optionally substituted on carbon with one or more (~~e.g. 1, 2, 3, or 4~~) substituents selected from the group consisting of (C₁-C₆)alkoxy, (C₃-C₆)cycloalkyl, (C₁-C₆)alkanoyl, (C₁-C₆)alkanoyloxy, (C₁-C₆)alkoxycarbonyl, (C₁-C₆)alkylthio, azido, cyano, nitro, halo, hydroxy, oxo, carboxy, aryl, aryloxy, heteroaryl, and heteroaryloxy.

Claims 14-17 (Cancelled).

18. (Currently amended) The polymer of claim 13 2, wherein R^2 is a divalent, branched or unbranched, saturated or unsaturated, hydrocarbon chain, having from 3 to 15 carbon atoms, wherein one or more (~~e.g. 1, 2, 3, or 4~~) of the carbon atoms is optionally replaced by (-O-) or (-NR-), and wherein the chain is optionally substituted on carbon with one or more (~~e.g. 1, 2, 3, or 4~~) substituents selected from the group consisting of (C₁-C₆)alkoxy, (C₃-C₆)cycloalkyl, (C₁-C₆)alkanoyl, (C₁-C₆)alkanoyloxy, (C₁-C₆)alkoxycarbonyl (C₁-C₆)alkylthio, azido, cyano, nitro, halo, hydroxy, oxo, carboxy, aryl, aryloxy, heteroaryl, and heteroaryloxy.

Claims 19-20 (Cancelled).

21. (Currently amended) The polymer of claim 1 2, wherein the linker R^2 is a divalent,

branched or unbranched, hydrocarbon chain, having from 3 to 15 carbon atoms.

22. (Original) The polymer of claim 2, wherein R^2 is a divalent, branched or unbranched, hydrocarbon chain, having from 6 to 10 carbon atoms.
23. (Currently amended) The polymer of claim 13 2, wherein the linker R^2 is a divalent hydrocarbon chain having 7, 8, or 9 carbon atoms.
24. (Currently amended) The polymer of claim 13 2, wherein the linker or R^2 is a divalent hydrocarbon chain having 8 carbon atoms.
25. (Original) The polymer of claim 1, further comprising another therapeutic agent dispersed in the matrix of the polymer.
26. (Original) The polymer of claim 1, further comprising another therapeutic agent appended to the polymer backbone.

Claims 27-34 (Cancelled).

35. (New) The polymer of claim 1, wherein the polymer is processed to form a film, coating, microsphere or fiber.
36. (New) The polymer of claim 3, wherein the polymer is processed to form a film, coating, microsphere or fiber.
37. (New) The polymer of claim 4, wherein the polymer is processed to form a film, coating, microsphere or fiber.
38. (New) The polymer of claim 1, wherein the polymer is coated on a medical implant.

RESPONSE TO RESTRICTION REQUIREMENT

Serial Number: 10/646,336

Filing Date: August 22, 2003

Title: THERAPEUTIC POLYANHYDRIDE COMPOUNDS FOR DRUG DELIVERY

Page 7

Dkt: 1435.021US2

39. (New) The polymer of claim 3, wherein the polymer is coated on a medical implant.
40. (New) The polymer of claim 4, wherein the polymer is coated on a medical implant.